

Mixture (Codemixing) of Languages Including Minangkabau, Indonesian and Chinese in Padang City

¹Mac Aditiawarman, ²Diana Kartika

Abstract--*Mixture (Codemixing) of Languages Including Minang, Indonesian And Chinese In Padang City. The language known as Padang Tiong Hoa (Tiong Pa). The language has been proceeded for long time. The mixture of Padang Tiong Hoa Language happened through three ways, they are the mixing of Indonesian language, Chinese, and Minangkabau language elements. The three language elements combine together and build a new Minangkabau language variant that is called Tiong Pa language. This research applies the Distributional Method. The aim of this research is to describe the rules of the vowel, consonant, diphthong changing in the mixture of Tiong Pa Language. The result of this research can be contributed to linguistics field. The result of this research indicates that: (1) the final deletion of vowel /-a/; (2) the medial deletion of vowel /-a-/; (3) the final deletion of /-ah/; (4) the final deletion of consonant /-h/; (5) the medial deletion of vowel /-i-/; (6) the medial deletion of vowel /-e-/; (7) the final changing of vowel /-o/ to /-a/; (8) the medial changing of vowel /-a-/ to /-â-/; (9) the final changing of diphthong /-ai/ to /-e/; (10) the medial changing of diphthong /-ia-/(/-ai-/) to vowel /-e-/; (11) the medial changing of /-i-/ to /-e-/; (12) the final changing of diphthong /-ia/ to vowel /-e/; (13) the final changing of diphthong /-au/ to vowel /-o/; (14) the medial changing of vowel /-u-/ to /-o-/; (15) the medial changing of diphthong /-ua-/ to vowel /-o-/; and (16) the medial changing of vowel /-a-/ to /-o-/.*

Key words--*Mix Language, Minangkabau Language, Indonesian Language, Chinese Language Component, Phoneme and Diphtong*

I. INTRODUCTION

Padang Chinese language is a new language that appears in the middle of the existing Minangkabau (BMk) and Indonesia language. The Chinese language was due to the learning of the Minangkabau and Indonesia language by ethnic Chinese in Padang. This ethnic Chinese learn the Minangkabau and Indonesia language since they first arrived in Padang. Minangkabau language learning is the second language after their native language, namely the Koi language.

Minangkabau language learning for ethnic Chinese in Padang is not a compulsion, but rather leads to their need for language as a tool to communicate with the people of Padang. Chinese Ethnic really need language that can be understood by the ethnic Chinese and the people of Padang. For this reason, as newcomers in the Padang community, ethnic Chinese must learn the Minangkabau language in Padang so that they can interact with one

¹Universitas Ekasakti, Indonesia. E-mail: macaditiawarman@yahoo.com

²Universitas Bung Hatta, Indonesia.

another. Language is very much needed by the ethnic Chinese because most of them work as traders. This is where the important role of language is needed to build communication and social interaction that they do.

In learning a new language, the Minangkabau language, ethnic Chinese cannot escape from the influence of their mother tongue. During the Minangkabau language learning, several symptoms occurred in the absorption of the Minangkabau language vocabulary. Language symptoms caused by the learning event, among others: absorption of vocabulary as a whole and absorption of vocabulary by sending changes in accordance with the mother tongue they already have when acquiring their first language. The changes that occur in the vocabulary of the Minangkabau language in learning have become permanent in themselves, so that these changes then characterize the Minangkabau language spoken by the ethnic Chinese of Padang as a new language in the Minangkabau dialect language group.

Changes can be experienced by any language. Changes can occur due to the influence of the accent, accent, or learner's intonation of a particular language learned. This fact is also justified by [1] through his statement, namely: Languages have different accents, they are pronounced differently by people from different geographical places, from different social classes, from different ages and different educational backgrounds, ... So, language changes can occur by new learners of the language, let alone different languages (discuss from different families), different accents alone can cause changes to the language being studied. The learning of the Minangkabau language by ethnic Chinese occurred in a long period of time and the changes occurred slowly. [2] explains that a very well-known assumption about language change is a change that is continuous but very slow, such as the rotation of the earth, moving slowly, or like a flower in bloom.

Aitchison's statement above proved to be evident in the changes experienced by the Minangkabau vocabulary absorbed by the Chinese. In line with this, [1] says that through a long period the sounds in all languages tend to change. These changes can be classified into two parts, (1) changes in speech without effect on the sound system, and (2) changes in phonetic structure, which affect a number of phonemes in their distribution. Furthermore, [3] states that sound changes can be investigated, namely between the original sound and the new sound through a reconstruction. The way to start a reconstruction is to take basic words and try to pair each sound form systematically.

[4] asserted that the key to a language change (in this case the morphosyntax) is dependent on which language is the language of the matrix (matrix language) during code switching. Based on the characteristics possessed by the Chinese, this language can also be categorized into a Minangkabau creole. In a creole, the language with the most elements is ascertained as a matrix language. Thus, the greatest language identity contained by the Chinese is derived from the Minangkabau language. Theories that support changes in Minangkabau language vocabulary due to learning done by ethnic Chinese include theories concerning phoneme change. Phonological changes that occur in a language can be referred to from the views of [1, 3, 5-7]

To analyze language changes caused by second or third language learning, the authors refer to the theories put forward in bilingual and multilingual language proposed by [8-14]. In discussing the absorption of the Minangkabau language by ethnic Chinese in the formation of the Chinese language in Padang refers to [7, 15-18].

II. METHODOLOGY

The method used in this research is the Distributional Method. Distributional method is a language analysis method that describes the elements of language in larger units, for example phonemes in words, words in phrases, phrases in sentences [19]. In this research, what is described is covering phonemes in the word environment. The vocabulary of the Minangkabau language is compared with the Chinese vocabulary, so that it can be seen that the Minangkabau vocabulary absorbed by the Chinese language has undergone a process of change and omission of its phoneme elements during learning.

III. RESULTS

This research is useful for the language world. This research is a disclosure that the Minangkabau language is a dynamic language because it has shown its development in accordance with the needs of the speakers of the language. As the main language, the Minangkabau language, for the Chinese language Pa has opened itself to accept these developments. As a result of this dynamism of the Minangkabau language, a language called the Chinese-language emerged as a variant of the Minangkabau language. In addition, the results of this study can serve as a tool in enriching the linguistic treasury in Indonesia in general, in Minangkabau in particular. In learning the Minangkabau language by ethnic Chinese there have been two phenomena of language, namely absorption in full and absorption with change. The language symptoms can be seen as follows.

Whole Absorption of Vocabulary BMk

The complete absorption of the Minangkabau vocabulary is the absorption carried out by the Chinese language by picking up the Minangkabau vocabulary intact without causing changes, both structurally and semantically to the words it absorbs. This type of absorption applies to the Minangkabau vocabulary. Changes that belong to this group can be seen in the following example.

Table 1

No.	BMk	Tiong Pa	Makna	Meaning
1.	[aka, ure?]	[aka, ure?]	akar	root
2.	[aso?]	[aso?]	asap	smoke
3.	[baa]	[baa]	bagaimana	how
4.	[baka]	[baka]	bakar	burn
5.	[bana]	[bana]	benar	correct

In the absorption of vocabulary from the Minangkabau language, as seen above, the vocabulary has not changed at all, both in form and in meaning. This group takes the Minangkabau vocabulary as the basis for the formation of the Chinese vocabulary by absorbing it as a whole. The vocabulary of the Minangkabau language that belongs to this group is a vocabulary that has a fairly high ability in order to defend themselves when they are adapted by the Chinese. Thus, the group managed to defend itself from the changes it faced.

Absorption by Experiencing Change

In the formation of Chinese-vocabulary, there is a lot of absorption found which results in phoneme changes in the absorbed vocabulary. The phenomenon of change described in the Miangkabau language vocabulary absorption by the Chinese language can be detailed as follows.

Absorption with a vowel /a/ at the end of words

In absorbing the Minangkabau language vocabulary which was used as an element of the Chinese Poa language, it was found that the vowel /a/ in the vocabulary of the Minangkabau language was absorbed. Elimination of vowels /a/ experienced by the absorption of vocabulary is very regular and can be determined the rules of change. The rules of change can be formulated as /-a/→/Ø/, if preceded by /-i-/ or /-u-/. The rule explains that, if vowel /-a/ occupies the final position of a word and is preceded by vowel /-i-/ or vowel /-u-/, then the vowel /-a/ tends to fade /Ø/ as in the following example.

Table 2

No.	BMk	Tiong Pa	Makna	Meaning
1.	[bibia] /a/	[bibi] /Ø/	bibir	lips
2.	[pingua] /a/	[pingu] /Ø/	pinggul	hip
3.	[dapua] /a/	dapu/Ø/	dapur	kitchen

The vowel /a/ at the end of a word in the Minangkabau language becomes sluggish (/Ø/) after it is adopted by the Chinese. Impulse that occurs, in general, if the vowel that is langued is preceded by vowel /i/ or /u/, while the vowel /i/ or vowel /u/ which precedes the vowel /a/ the feeling that automatically occupies the final position in the word.

Absorption by Eliminating Vowels /a/ in the Middle of a Word

Vowel removal /a/ in the Minangkabau vocabulary absorbed by the Tioang Pa language can also occur in vowel /a/ which is positioned in the middle of a word. Vowel deletion /a/ positioned in the middle of a word that follows the rules of /-a- → /Ø/, if preceded by /-i-/ or /-u-/ as in the following example.

Table 3

No.	BMk	Tiong Pa	Makna	Meaning
1.	[dagua?] / <u>a</u> /	[dagu?] / <u>Ø</u> /	dagu	chin
2.	[kaniᅇᅇ] / <u>a</u> /	[kaniᅇᅇ] / <u>Ø</u> /	kening	forehead
3.	[taᅇᅇᅇᅇ] / <u>a</u> /	[taᅇᅇᅇᅇ] / <u>Ø</u> /	tongos	bucktoothed

Removal of vowel /a/ in the middle position in the distribution occurs when the vowel /a/ is preceded by vowel /i/ or /u/. In general, the vowel /a/ in the middle will disappear (Ø = zero) if followed by the glotal stop (?) And velar /ŋ/.

Absorption by Eliminating Vowels /ah/ at the End of a Word

In the formation of Chinese. Vocabulary, this language picks up the Minangkabau vocabulary by showing symptoms of disappearance /ah/ in the final vocabulary collected. Vocabulary collection by removing the element /ah/ at the end of this word can be formulated as /-ah / → /-Ø/ as in the following example.

Table 4

No.	BMk	Tiong Pa	Makna	Meaning
1.	[bunuah] / <u>ah</u> /	[bunu] / <u>Ø</u> /	bunuh	kill
2.	[basuah] / <u>ah</u> /	[basu] / <u>Ø</u> /	cuci	wash
3.	[jauah] / <u>ah</u> /	[jau] / <u>Ø</u> /	jauh	far

The vowels /a/ and consonants /h/ which are located at the end of words in the Minangkabau language absorbed by the Chinese tend to disappear, because the vowel /a/ has a low position on the vowel triangle sequence.

Absorption by removing consonants /h/ at the end of words

In the Minangkabau vocabulary collection by the Chinese, found symptoms of the removal of consonants /h/ at the end of the words collected. This omission occurs only on consonants /h/ which occupy the end position of the words collected from the Minangkabau language. The removal of the consonant /h/ at the end of a word like this can be formulated in the form of rules, namely /-h/ → /-Ø/, as in the following example.

Table 5

No.	BMk	Tiong Pa	Makna	Meaning
1.	[buah] / <u>h</u> /	[bua] / <u>Ø</u> /	buah	fruit
2.	[darah] / <u>h</u> /	[dara] / <u>Ø</u> /	darah	blood
3.	[ludah] / <u>h</u> /	[luda] / <u>Ø</u> /	ludah	saliva

Two vowels are located directly side by side in a word structure can be said as diphthongs. Two vowels in a row that are not included in the diphthong group are when the two vowels are separated due to beheading of syllables (syllabus) from the relevant word. An example can be seen in data number 1, the word fruit when decapitated into two syllabi, it will become bu-ah. In Beheading there has been a separation between vowel /u/ and vowel /a/ which is found in the word fruit, therefore the row of vowel /u/ and vowel /a/ in the word fruit is not included in the diphthong group. Different from the word island, vowels /a/ and vowels /u/ will not be separated if the decapitation is done to get syllabus (syllables). Thus, the vowels /a/ and vowels /u/ in the word island are vowels that belong to the diphthong group.

Absorption by Eliminating Vowel /i/ in the Middle of a Word

Vowel removal /i/ in the Minangkabau language words collected can be formulated as /-i- / → /-Ø-/ as in the following example.

Table 6

No.	BMk	Tiong Pa	Makana	Meaning
1.	[lutui?] / <u>i</u> -/	[lutu?] / <u>Ø</u> -/	Lutut	knee
2.	[mului?] / <u>i</u> -/	[mulu?] / <u>Ø</u> -/	Mulut	mouth
3.	[parui?] / <u>i</u> -/	[p ^h ru?] = <u>Ø</u> -/	Peruts	stomach

In general, the removal of vowel /i/ in the middle of a word usually occurs in words that are terminated by a glota stop (?), And the vowel /i/ which is lethargic is preceded by a vowel as well, that is preceded by vowel /u/. The vowel /i/ which is preceded by a vowel other than the vowel /u/ and are both terminated by a glotal stop as in the example above, the vowel /i/ does not experience impingement. For vowel /i/ which is preceded by vowels other than vowel / u / can be seen in the word [pai?] In the Minangkabau language, still [pai?] In Chinese, which in

Table 8

No.	BMk	Tiong Pa	Makna	Meaning
1.	[buai] / <u>-ai</u> /	[bue] / <u>-e</u> /	buai	swing
2.	[tapai] / <u>-ai</u> /	[tape] / <u>-e</u> /	tapai	fermentation
3.	[sungai] / <u>-ai</u> /	[sunje] / <u>-e</u> /	sungai	river

This change is included in the group of diphthongs to monophthongs because monophthongs /e / are not included in any of the vowels contained by the vowels contained in diphthongs /ai/. Diftong / ai / originating from a combination of low middle vowel / a / and high front vowel has changed to middle front vowel /e /.

Absorption with Changes in Diftong /-ia/ (/ai/) in the Middle of the Word to become Monoftong /-e/

The middle position Diftong has changed, i.e. (/ai/) changed to monoftong /e/. This change can be formulated by the /-ai/ (/ -ai-) → /-e/, as follows.

Table 9

No.	BMk	Tiong Pa		Meaning
1.	[taria?] / <u>-ia-</u> /	[tare?] / <u>-e-</u> /	tarik	pull
2.	[adia?] / <u>-ia-</u> /	[ade?] / <u>-e-</u> /	adik	brother/sister
3.	[sunai?] / <u>-ia-</u> /	[sne?] / <u>-e-</u> /	sunat	circumcision

The change of diphthong to monophthong meant here is: one of the changed diphthong elements does not appear in the results of the changes. In other words, the monophthong that appears is not vocal /a/ or vocal /i/, but the monophthong that appears as a substitute is the vocal /e/ which is not included in any of the members of the diftong that it replaces. Changes to monophthong (vowel) /e/ can usually occur if the diphthong comes from the vocal elements /a/ and vowel /i/. The changes caused by the borrowing of the Minangkabau vocabulary by Tiong Pa are: If the diphthong consists of a combination of high front vowel /i/ and vowel middle vowel /a/, then the result of the change will be the middle front vowel /e/. Changes that occur in a very regular vocal environment follow vertical motion in the form of direction of movement from top to bottom or from bottom to top. Movement of vocal changes is not found in the horizontal form, both from right to left or from left to right. The direction of motion of the vocal changes can be seen in the following vocal table.

Table 10 Vowel Change Direction Table

Tongue position	Phoneme		
	Front	Central	Back
High	i ↑↓		u ↑↓
Mid	E ↑↓		O ↑↓
Low		a	

Phoneme changes can occur in synchronous position, meaning that if phoneme changes occur usually only in one particular column. The phonemes can change only in the same phoneme environment, for example the front phonemes can only change into phonemes within the front phoneme, as well as the rear phonemes, the rear phonemes can change into phonemes that are in the rear phoneme environment as well. The phonemes cannot be turned into certain phonemes outside their environment, such as the front phonemes will never turn into a central phoneme, or the rear phonemes. In other words, if the front phoneme changes, then the change can already be ascertained with a phoneme that is both derived from the front phoneme as well, it is not possible with the middle or rear phonemes.

Absorption by Changing Vowel / i / To / e / in the Middle of a Word

In the formation of Chinese's vocabulary also changes the vowel / i / which is positioned in the middle of the Minangkabau word to vowel / e / after being picked up by the Chinese. This vocal change follows the formula / - i - / → / - e - /, as the example can be seen below.

Table 11

No.	BMk	Tiong Pa	Makna	Meaning
1.	[lain] /i/	[laen] /e/	lain	other
2.	[main] /i/	[maen] /e/	main	play
3.	[kain] /i/	[kaen] /e/	kain	fabric

These changes can occur when in the Minangkabau vocabulary, the vowel /i/ is located in the middle of the word and the word is absorbed by Chinese, then the vowel /i/ changes to vowel /e/. The high front vowel /i/ in the Minangkabau vocabulary has a tendency to change to the middle front vowel /e/ when absorbed by Chinese. Changes to the vowels do not occur at random and all vowels, only vowels that follow the above criteria can change.

Absorption by Changing Diftong /ia/ Becoming Monoftong /e/ at the End of a Word

Changes in diphthongs /ia/ to monoftong /e/ in Chinese occur in the final position, can be formulated as follows /-ia/ → /-e-/ (+ k). The above rule explains that, diphthong / -ia / in the final position in the Minangkabau language can turn into vowel /-e-/ in the middle because the vocabulary after becoming a Chinese vocabulary is added with consonant /k/ as the final phoneme of the closing word the. Such a fact can be seen in the word [aia] in the Minangkabau language turned into the word [ae?] In the Chinese word.

Absorption by Changing Diftong /au/ to /o/ at the End of a Word

In the process of picking up the Minangkabau vocabulary by the Chinese, it was also found that diphthongs /au/ whose final position changed to monoftong /o/. This change is included in the diphthong change group because the change is not one of the two double vowels. The vowels that appear are not vocal /a/ or vocal /u/, but vowels /o/. These changes can be considered as /-au / → /-o/, can be seen in the following example.

Table 12

No.	BMk	Tiong Pa	Makna	Meaning
1.	[kalau] / <u>-au</u> /	[kalo] / <u>-o</u> /	Kalau	if
2.	[danjau] / <u>-au</u> /	[danjo] / <u>-o</u> /	dangau	loom
3.	[barjau] / <u>-au</u> /	[barjo] / <u>-o</u> /	Bangau	heron

Change diphthong /au/ to monoftong /o/ follow the vocal sequence contained in the existing vocal table. Changes experienced by the double vowels (diphthongs) consisting of low middle vowel /a/ and high back vowel / u / show the tendency for changes that follow the shift in the layout in the vocal table. This change will move towards the middle /back/ vowel. Movement will not be possible towards the front vowel. This movement is controlled by the vocals located in the back or front positions in the vocal table. Vowel /a/ will not determine the direction of movement of the change because vowel /a/ is located in the middle position or more suitable is said to be a neutral position.

Absorption by Changing Vowel /u/ to /o/ in the Middle of a Word

In the formation of Chinese-vocabulary derived from the Minangkabau vocabulary a symptom of middle/vocal changes was found. Such changes can be considered as /-u- / → /-o-/. This change can be seen in the following example.

Table 13

No.	BMk	Tiong Pa	Makna	Meaning
1.	[tuŋke?] / <u>-u-</u> /	[toŋke?] / <u>-o-</u> /	Tongkat	stick
2.	[lubanŋ] / <u>-u-</u> /	[lobanŋ] / <u>-o-</u> /	Lubang	hole
3.	[balun/alun] / <u>-u-</u> /	[belum] / <u>-o-</u> /	Belum	not yet

In the example changes described above, examples 1 and 2 glance look like vocal / u / change to vocal /o/. Vowels /u/ or /o/ cannot change to vowel /e/ or /i/.

Absorption by Changing Diftong /ua/ to /o/ in the Middle of a Word

Changes in diphthongs / ua / in the middle of the word Minangkabau language tend to change to vowel /o/ after being picked up by the Chinese. These changes are patterned and follow the /-ua-/ → /-o-/ rules. Changes according to this rule are found in the following example.

Table 14

No.	BMk	Tiong Pa	Makna	Meaning
1.	[manganduanŋ] / <u>-ua-</u> /	[maŋandoŋ] / <u>-o-</u> /	mengandung	contain
2.	[dayuanŋ] / <u>-ua-</u> /	[dayoŋ] / <u>-o-</u> /	Dayung	paddle
3.	[gayuanŋ] / <u>-ua-</u> /	[gayoŋ] / <u>-o-</u> /	Gayung	scoop

Changes that occur in diphthong are following the vocal layout accompanying the vocal /a/. Changes usually revolve around the position of the phoneme, as the determinant is the front or rear phonemes which are paired with the phoneme /a/, while the middle phoneme (/a /) only functions as a companion because it is neutral. The central phoneme (/a/) is called a neutral phoneme because in the Minangkabau language, there is only one central phoneme that is the phoneme /a/.

Absorption with Vocal Change /a/ Become /o/ in the Middle of a Word

Changes in vowel /a/ in the middle of the Minangkabau language can be changed to vowel /o/ in Chinese after taking these words. The change in vowel /a/ to vowel /o/ in the middle of this word is not much, as in the following rules /-a-/ → /-o-/. Changes of this type can be seen in the word [taboo] in the Minangkabau language changed to the word [tobu “cane”] in the Chinese word.

IV. CONCLUSION

According to the results of the analysis of the data of this study, the authors argue that in undergoing social interaction between Chinese descendants of the community in Padang with the people of Padang has brought a very large can to the language of Chinese society. The BI changes they studied had shifted, both in terms of phoneme changes, mergers, and disappearances. For that, let's look at the rules of the language. Based on the frequency of the appearance of the Minangkabau vocabulary, it can be stated that the Minangkabau language is located as a matrix language (the language that dominates in the formation of the Chinese language) in the Chinese language. Thus, the Chinese language is clearly a manifestation of the dynamics of the Minangkabau language.

REFERENCES

1. P. Roach, English Phonetics and Phonology Paperback with Audio CDs (2): A Practical Course: Cambridge university press, 2009.
2. J. Aitchison, "Language change," in *The Routledge Companion to Semiotics and Linguistics*, ed: Routledge, 2005, pp. 111-120.
3. M. Gordon and P. Ladefoged, "Phonation types: a cross-linguistic overview," *Journal of phonetics*, vol. 29, pp. 383-406, 2001.
4. R. M. McKenzie, *The social psychology of English as a global language: Attitudes, awareness and identity in the Japanese context*: Springer, 2010.
5. F. Coulmas, *Sociolinguistics: The study of speakers' choices*: Cambridge University Press, 2013.
6. W. Labov, *Principles of linguistic change, volume 3: Cognitive and cultural factors* vol. 36: John Wiley & Sons, 2011.
7. M. Aditiawarman, *Bahasa Indonesia Penutur Etnis Tiong Pa*. Padang: Lembaga Kajian Aset Budaya Indonesia Tonggak Tuo, 2009a.
8. J. Cenoz, *Towards multilingual education: Basque educational research from an international perspective* vol. 72: *Multilingual Matters*, 2009.
9. S. Romaine, "18 The Bilingual and Multilingual Community," *The handbook of bilingualism and multilingualism*, p. 445, 2013.
10. J. W. Santrock, "Bilingualism and Second-Language Learning," *A Topical Approach to Life-Span Development*, pp. 330-335, 2008.
11. A. Bastardas-Boada, "Linguistic sustainability for a multilingual humanity," *Darnioji daugiakalbystė*, pp. 134-163, 2014.
12. T. K. Bhatia and W. C. Ritchie, *The handbook of bilingualism*: John Wiley & Sons, 2008.
13. B. C. Ng, et al., *Bilingualism: An advanced resource book*: Taylor & Francis, 2007.
14. R. Appel and P. Muysken, *Language contact and bilingualism*: Amsterdam University Press, 2005.
15. M. Aditiawarman, *Etnis Tiong Pa dalam Perspektif Sosiolinguistik*. Bandung: Rekayasa Sains, 2005.
16. M. Aditiawarman, *Bahasa Tiong Pa Bahasa Minangkabau Juga*. Padang: Lembaga Kajian Aset Budaya Indonesia Tonggak Tuo, 2009b.
17. M. Aditiawarman, *Interferensi Bahasa Minangkabau dalam Pembentukan Bahasa Tiong Pa*. Padang: Lembaga Kajian Aset Budaya Indonesia Tonggak Tuo, 2009c.
18. M. Aditiawarman, *Pengaruh Komunikasi Antarkultur dalam Pembentukan Kata Sapa Bahasa Tiong Pa*. Padang: Lembaga Kajian Aset Budaya Indonesia Tonggak Tuo, 2009d.
19. T. F. Djajasudarma, *Analisis bahasa: sintaksis dan semantik*: Humaniora Utama Press (HUP), 1997.
20. Tekuri, Siva Kumar, Sivarama Krishana Pasupuleti, Kranthi Kumar Konidala, Neeraja Pabbaraju, and . 2019. Pharmacological Effects of Polyalthia cerasoides (Roxb.) Bedd.: a brief Review. *Journal of Complementary Medicine Research*, 10 (1), 38-49. doi:10.5455/jcmr.20190108065022
21. Ugurlucan, M., Filizcan, U., Caglar, I., Zencirci, E., Kaya, E., Es, M., Gurol, T., Yildiz, Y. Coronary artery bypass grafting in a patient with gout arthritis (2012) *Journal of Cardiovascular Disease Research*, 3 (1), pp. 52-54.
22. Persinger, M.A., Koren, S.A., Lafreniere, G.F. A neuroquantologic approach to how human thought might affect the universe (2008) *NeuroQuantology*, 6 (3), pp. 262-271.
23. Persinger, M.A., Tsang, E.W., Booth, J.N., Koren, S.A. Enhanced power within a predicted narrow band of theta activity during stimulation of another by circumcerebral weak magnetic fields after weekly spatial proximity: Evidence for macroscopic quantum entanglement? (2008) *NeuroQuantology*, 6 (1), pp. 7-21.
24. Rathika, S.K.B., Bhavithra, J. An efficient fault tolerance quality of service in wireless networks using weighted clustering algorithm (2012) *Bonfring International Journal of Research in Communication Engineering*, 2 PART 4 (1).
25. Marsilin, J.R., Wiselin Jiji, G. An efficient cbir approach for diagnosing the stages of breast cancer using knn classifier (2012) *Bonfring International Journal of Advances in Image Processing*, 2 (1), pp. 1-5.